

Issued: September 26, 1983.

Dave McLoughlin,

Deputy Associate Director, State and Local Programs and Support.

[FR Doc. 83-27490 Filed 10-11-83; 8:45 am]

BILLING CODE 6710-03-M

## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 17

#### Endangered and Threatened Wildlife and Plants; Rule to List

#### *Panicum Carteri* (Carter's Panicgrass) as an Endangered Species and Determine its Critical Habitat

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule.

**SUMMARY:** The U.S. Fish and Wildlife Service determines one plant, *Panicum carteri* (Carter's panicgrass) to be an Endangered species and the island of Mokoli'i (Chinaman's Hat) to be its Critical Habitat. These actions are taken under the authority of the Endangered Species Act of 1973, as amended.

*P. carteri* is a small annual grass found only on Mokoli'i, in the City and County of Honolulu, Hawaii. The principal threats to this plant's survival are vandalism, including fire and trampling; and habitat disturbance resulting from recent unauthorized planting of coconut trees in the area in which it grows. The present rule is intended to provide *Panicum carteri* the protection available under the Act.

**EFFECTIVE DATE:** November 14, 1983.

**FOR FURTHER INFORMATION CONTACT:** Mr. John L. Spinks, Jr., Chief, Office of Endangered Species, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (703/235-1975).

**ADDRESS:** The complete file for this rule is available for inspection by appointment, during regular business hours (7:45-4:15 p.m.), at the Service's Office of Endangered Species, 1000 North Glebe Road, Arlington, Virginia.

#### SUPPLEMENTARY INFORMATION:

##### Background

*Panicum carteri* is an annual grass whose population fluctuates considerably in numbers from year to year, apparently in response to the amount of annual winter rainfall. It is one of several endemic Hawaiian species of the large cosmopolitan genus *Panicum* that are adapted to dry

lowland habitats. The earliest known collection of *P. carteri* was in 1917, but the species was not formally recognized as distinct until 1942. It is known from a small area of Mokoli'i island, near Kualoa Point, Oahu, and is only evident during and immediately after winter rains, when it grows from seed and flowers. The plants die back during the drier summer months and only seeds survive the period of drought. The largest number of individuals of this species ever observed during a rainy season was slightly over 200, while in some years observers have failed to find the species at all. This species and its close relatives on others of the Hawaiian islands are presumably all derived from a single ancestral stock and would be appropriate subjects for research on the differentiation and radiative evolution of island species.

The principal threats to the survival of *P. carteri* are trampling by visitors to Mokoli'i; vandalism, including the possibility of arson or accidental fire; and habitat disturbance associated with the recent unauthorized planting of coconut trees in the area in which the *Panicum* grows.

Section 12 of the Endangered Species Act of 1973 (the Act) directed the Secretary of the Smithsonian Institution to prepare a report on those plants considered to be endangered, threatened, or extinct. This report, designated as House Document No. 94-51, was presented to Congress on January 9, 1975. On July 1, 1975, the Director of the U.S. Fish and Wildlife Service published notice in the *Federal Register* (40 FR 27823) of his acceptance of the report of the Smithsonian Institution as a petition under Section 4(c)(2) of the Act. The plant species named in this petition were placed under review for addition to the list of Endangered and Threatened plants and, on June 16, 1976, the Director published a proposed rule (41 FR 24523) that would have listed some 1,700 such taxa as Endangered. This proposal was based on the Smithsonian petition as well as comments and other information received by the Service and the Smithsonian Institution. *Panicum carteri* was listed in House Document No. 94-51 and the 1975 notice as extinct, but was later rediscovered and included in the proposal.

The Endangered Species Act Amendments of 1978 subsequently

required that any proposal to list a species be withdrawn unless made final within two years. A period of one year was allowed after the passage of the amendments on November 10, 1978, during which no proposals were to be withdrawn because of having passed a two-year deadline. On December 10, 1979 (44 FR 70796) the Service published a notice withdrawing that portion of the June 16, 1976, proposal that had not been the subject of final action, as well as four other expired proposals. A reproposal was published on January 30, 1981 (46 FR 9976), based on information available at the time of the 1976 proposal and information gathered between that time and the date of the proposal's withdrawal as well as a report of a visit to Mokoli'i indicating that the site from which *Panicum carteri* has been known was recently disturbed by the planting of coconut trees (Annabelle Takahashi, Letter dated October 8, 1980).

The comment period on this reproposal closed on April 30, 1981. It was subsequently reopened from July 29, 1982, until October 27, 1982, in order to allow the Service to accept further comments from State and local governments and other interested parties.

In the June 2, 1977, *Federal Register* (42 FR 32373, codified at 50 CFR 17.61, 17.62, and 17.63) the Service published a final rule detailing regulations to protect Endangered plant species. These established prohibitions and a permit procedure to grant exceptions to the prohibitions under certain conditions.

#### Summary of Comments and Recommendations

The proposed rule of January 30, 1981 (46 FR 9976), invited comment from all interested parties that might contribute to the formulation of a final rule. All comments received between the time of publication of the proposal and April 30, 1981, have been considered and are summarized below. Comments received between July 29, 1982, and October 27, 1982, are also treated.

In his original comment, the Governor of Hawaii agreed that *Panicum carteri* is in need of protection, citing the need for control of rodents and encroaching exotic vegetation on Mokoli'i, as well as for controls on human access to the island. He expressed the opinion that

propagation and transplant of the species will enable its range to be expanded on Mokoli'i and elsewhere on Oahu. He concluded, however, that listing of the species as Endangered is unnecessary because a coordinated effort for the species' protection will be able to ensure its survival. In an additional comment after reopening of the comment period, the Governor continued to oppose listing, citing recent restrictions on human access to Mokoli'i and continued plans to propagate and relocate the species. The Service believes that the very precarious situation of this species, acknowledged by the Governor, warrants its listing. After the species is listed, the Service would be authorized to coordinate and participate in recovery activities. The Act is primarily concerned with the maintenance of species within their native habitats, rather than their protection through transplantation outside native range. Even granting that transplant might eventually provide valuable insurance for a species known from an extremely small native population, no successful reproduction of transplanted *P. carteri* has taken place and the ultimate success of any such actions remains highly speculative. The absence of this species from areas adjacent to its present range on Mokoli'i suggests that long-term maintenance outside its small known range may not be feasible. If transplant is demonstrated to be possible, it should be recognized that this species should not be relocated to habitat within or adjacent to the range of any related species of *Panicum* because of the possibility of hybridization that could alter the gene pools of both species. While acknowledging the probable benefit to *P. carteri* of recent actions to restrict human use of Mokoli'i, the Service believes that threats to the species from unauthorized visitation and the competitive and predatory effects of exotic organisms are such that the species' listing is warranted.

In her original comment, the Mayor of Honolulu recommended that the species not be listed or Critical Habitat be designated because of the possible adverse effect on the species as a result of calling attention to its occurrence and because of the possibility of vandalism to its habitat if any attempt were made to restrict public access to Mokoli'i.

The Mayor did, however, indicate concern for the species' protection and indicated that the City and County of Honolulu will cooperate with the State and others in an effort to propagate the species. In further comments after reopening of the comment period, the

Mayor again opposed listing, also citing recent restrictions on human activity on Mokoli'i and the probability of the species being propagated and transplanted.

As noted above, the Service believes that recent restrictions on public access to Mokoli'i may contribute to the conservation of *P. carteri*, but that other threats to the species' survival continue to warrant its listing. As also noted above, the potential for propagating this species and the efficacy of a program of transplantation remain open to speculation. The Service appreciates the difficulty of balancing the need to identify a sensitive resource with the possible danger of exposing it to vandalism or other disturbance. It should be noted that the designation of Mokoli'i as Critical Habitat for *Carter's* panicgrass does not automatically or necessarily limit public access to the island. Critical Habitat has significance only insofar as Federal agencies might be involved in modification of the island. No such Federal agency actions are anticipated in the present case. Nevertheless, the Act requires that Critical Habitat be specified to the maximum extent prudent when a species is proposed for listing. It is in order to comply with this provision of law, rather than to affect any known Federal activity, that Critical Habitat was proposed for the *Panicum*. Given that the listing and designation of Critical Habitat do not impose any burden on the public that is likely to provoke vandalism, and inasmuch as the local authorities have now imposed use restrictions in the absence of such a determination, the Service believes that the survival of the species is best served by listing and finds the designation of Critical Habitat to be prudent in this case.

The Department of General Planning of the city and county of Honolulu commented that the designation of Mokoli'i as Critical Habitat \* \* \* "would be consistent with the City's General Plan policies and objectives."

Dr. Douglas Rayner of the South Carolina Wildlife and Marine Resources Department indicated concern with several aspects of the proposal. He commented that the documentation in the proposed rule was "meager" and failed to indicate that a status review had been conducted for the species, or whether there had been any search for additional populations. He questioned whether any reexamination had been made of the species' taxonomy. He also requested that the source of information regarding annual population fluctuations and the unique features of the species'

present habitat that limit its distribution and requested clarification concerning the actual, rather than potential, effects of the recent planting of coconut trees within the species' habitat. Dr. Rayner's concerns are addressed below:

#### *Adequacy of Status Information*

The proposed rule inadvertently failed to refer specifically to a detailed status report on the species prepared by Service personnel and available on request to interested parties. It was included however, in the administrative file, which was open for public inspection, and the information contained in the report was discussed generally in the proposed rule. The complete file is available from the Service at the Office of Endangered Species (see "ADDRESSES" above). This report is summarized in part above in SUPPLEMENTARY INFORMATION.

#### *Possible Existence of Additional Populations*

The lowland flora of Oahu is relatively well-known and the Service is reasonably sure that no additional populations of this species exist. Such extreme endemism, which would be very unusual in a continental species, is in fact common among Hawaiian plants, many of which are known only from small isolated populations. This is, in fact, one of the principal reasons that such a high percentage ( $\pm 40\%$ ) of native Hawaiian plants are extinct, Endangered, Threatened, or candidates for listing.

#### *Taxonomic Status*

Although no recent taxonomic study has been made of the group to which *Panicum carteri* belongs, it has been recognized as a distinct species by students of the Hawaiian flora since its description in 1942 (e.g., St. John 1973). The Service sees no reason to question its validity as a distinct species.

#### *Source of Information on Population Fluctuation*

Several estimates of population size have been made for *P. carteri*. E. Y. Hosaka, who described it originally, found only 12 individuals in 1941. In 1976, about 24 individuals were found, and, in the exceptionally wet year of 1978, 207 were found. Because it was not recorded between 1941 and 1976, the species had been believed to be extinct, although no detailed records exist of attempts to relocate it in the intervening time. The 1976 and 1978 records are provided by Dr. Derral Herbst and referred to in the status review mentioned above.

### Uniqueness of Habitat

There is nothing obviously unique about the small habitat in which this species occurs, but the fact that it has persisted only in one very small area for at least the past 40 years suggests that it may depend upon some factor, or combination of factors, present in the area but not fully understood at present. It should be noted that such instances of extreme endemism without obvious habitat uniqueness are rather common among the Hawaiian flora.

### Impact of Coconut Planting

The ultimate consequences of the recent planting of coconut-palms in the habitat of this species cannot presently be predicted with any certainty. It appears that soil excavated for the planting was spread over the area and that this may either inhibit the growth of *P. carteri* or encourage the establishment of other, exotic, species such as *Digitaria adscendens* (Henry's crabgrass) as suggested by another commenter, Mr. Keith Woolliams. Further monitoring of the site, particularly during the rainy season, will be necessary to estimate the magnitude of effects.

Letters from Mr. Keith Woolliams, Director of Waimea Arboretum & Botanical Garden, Haleiwa, Hawaii, particularly expressed concern that the coconut planting would adversely affect *P. carteri* by encouraging the growth of disturbance-tolerant exotic grasses.

Three additional comments generally supported listing of the species, without providing further details concerning its status.

A public meeting was held concerning the proposed rule on March 5, 1981, at the Kahalu'u Elementary School in Kaneohe, Hawaii. This meeting was attended by representatives of the Service, the Hawaii State Department of Land and Natural Resources, and three private citizens. No additional information or comments on the proposal were brought forward at the meeting.

### Conclusion

After a thorough review and consideration of all available information, the Service has determined that *Panicum carteri* (Carter's panicgrass) is in danger of becoming extinct throughout all of its range due to one or more of the factors described in Section 4(a) of the Act. These factors and their application to the status of this species are discussed below.

A. *Present or threatened destruction, modification, or curtailment of habitat or range*—*Panicum carteri* occurs only

on Mokoli'i, or Chinaman's Hat, Island in Honolulu County, Hawaii. This is a part of Kualoa Regional Park. Although the master development plan for the park designates Mokoli'i as a wildlife sanctuary, it will be difficult to control access to the island. The island can be reached by wading during low tide and by small boats at other times. As the development plans are implemented and more people are attracted to the park, it is virtually inevitable that traffic will become heavier on Mokoli'i. The entire population of the species ranges along a foot trail. Although the effect of pedestrian traffic on the species is not known, some deterioration of the environment with a concomitant effect on the species can be anticipated. A report received by the Service (Annabelle Takahashi, letter dated October 8, 1980) indicates that recent unauthorized planting of coconut trees on Mokoli'i may have had a severe impact on the area from which *Panicum carteri* is known.

B. *Overutilization for commercial, recreational, scientific, or educational purposes*—Does not apply to this species.

C. *Disease or Predation*—None known.

D. *Inadequacy of existing regulatory mechanisms*—Although Mokoli'i is a designated wildlife sanctuary, it is difficult to restrict access to the island.

E. *Other natural or manmade factors affecting continued existence*—The small number of individuals and their limited distribution must be considered a threat to the species' continued existence. A single fire or act of vandalism could severely deplete or destroy the one known population.

### Critical Habitat

The Act defines "Critical Habitat" as (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of Section 4 of this Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by the species at the time it is listed in accordance with the provisions of Section 4 of this Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.

The Critical Habitat of *Panicum carteri* includes the entire island of Mokoli'i (approximately 4 acres), although presently the plant only occurs in two restricted portions of the island.

Because of the small size of Mokoli'i, activities anywhere on the island could be significant to the conservation of this species. As an example, a fire originating virtually anywhere on the island during drought conditions might spread to the area in which the *Panicum* grows. Therefore, the Service believes the entire island to be an area essential to the conservation of the species.

The precise constituent elements of this habitat upon which *Panicum carteri* depends for its continued survival are presently unknown, but may include exposure to strong sunlight; low rainfall; exposure to sea spray; and presence of gravelly, basalt-derived soil. Ability to withstand such relatively harsh conditions may allow *P. carteri* to compete successfully with other plant species within its limited habitat.

Section 4(f)(4) of the Act requires, to the maximum extent practicable, that any designation of Critical Habitat be accompanied by a brief description and evaluation of those activities which, in the opinion of the Secretary, may adversely modify such habitat if undertaken, or may be impacted by such designation. Such activities are identified below for this species. It should be emphasized that Critical Habitat designation may not affect each of the activities listed below, as Critical Habitat designation only affects Federal agency activities, through Section 7 of the Act.

Actions that would result in direct adverse effects on the Critical Habitat include setting of fires on the island and trampling of the portion of the island that actually supports the population of *Panicum carteri*. Any action that contributed to increased human visitation of Mokoli'i could be expected to contribute indirectly to such adverse modification.

Because of the lack of Federal involvement in the area of Critical Habitat, no direct consequences are foreseen as a result of such designation. Federal recognition that the island is essential to the conservation of *Panicum carteri*, however, may tend to reinforce the City and County of Honolulu's compatible designation of the area as a wildlife sanctuary.

Section 4(b)(4) of the Act requires the Service to consider economic and other impacts of specifying a particular area as Critical Habitat. The Service has prepared an impact analysis for the present designation to serve as a basis for considering the possible exclusion of certain portions of the proposed area from Critical Habitat designation in order to avoid undesirable impacts that such designation might have. On the

basis of this analysis, the Service believes designation of Mokoli'i island as Critical Habitat for *Panicum carteri* to be without significant economic or other impacts in the foreseeable future. Designation as Critical Habitat places restrictions only on activities in which there is involvement of a Federal agency, and no such activities are known to be taking place or planned on Mokoli'i. In consideration of this analysis and the conservation needs of *Panicum carteri*, the entire area proposed is determined to be Critical Habitat in the present rule.

#### Available Conservation Measures

In addition to those discussed above, the effects of the present rule include, but are not necessarily limited to, the following: The Act and implementing regulations published in the 50 CFR 17.61 set forth a series of general prohibitions and exceptions that apply to all Endangered plant species, and are summarized below.

With respect to *Panicum carteri* all prohibitions of section 9(a)(2) of the Act, as implemented by § 17.61, apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export, transport in interstate or foreign commerce in the course of a commercial activity, or sell this species or offer it for sale in interstate or foreign commerce. Certain exceptions would apply to agents of the Service and State conservation agencies. Taking of Endangered plants is prohibited only when it occurs on land under Federal control and is intended to reduce such plants to possession. The Act and § 17.62 also provide for the issuance of permits to carry out otherwise prohibited activities involving Endangered or Threatened species under certain circumstances.

Section 7(a) of the Act also requires that Federal agencies carry out programs for the conservation of Endangered and Threatened species and that they ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of such species or destroy or adversely modify the Critical Habitat of such species. A procedure is also established whereby particular Federal

actions may be exempted from compliance with Section 7(a). Provisions for interagency cooperation in complying with Section 7(a) of the Act are codified at 50 CFR Part 402.

The Service will also review the status of this species to determine whether it should be proposed to the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora for placement upon the appropriate appendices to that Convention or whether it should be considered under other appropriate international agreements.

#### National Environmental Policy Act

An environmental assessment has been prepared in conjunction with this rule. It is on file in the Service's Office of Endangered Species, 1000 North Glebe Road, Arlington, Virginia, and may be examined by appointment during regular business hours (7:45-4:15 p.m.). This assessment forms the basis for a decision that this is not a major Federal action which would significantly affect the quality of the human environment within the meaning of Section 102 (2)(C) of the National Environmental Policy Act of 1969 and 40 CFR Parts 1500-1508.

**Note.**—The Department of the Interior has determined that the present designation of Critical Habitat is not a major rule and does not require the preparation of a regulatory analysis under Executive Order 12291. The Department has also determined, in accordance with the Regulatory Flexibility Act (5 U.S.C. 601), that the rule will not have a significant economic effect on a substantial number of small entities. Due to the nature of the location and the species, no significant effect upon a substantial number of small entities is known, anticipated, or in fact possible. This finding was made as a result of staff discussions and the analysis of data provided by the City and County of Honolulu.

#### References

- Herbst, D. 1978. Unpublished status report on *Panicum carteri* Hosaka.  
Hosaka, E. Y. 1942. A new Hawaiian *Panicum* (Gramineae). Occ. Paps., B. P. Bishop Museum 17:67-69.  
Park Engineering, Inc. 1972. Master Development Plan—Kualoa Regional Park, for the City and County of Honolulu. Department of Parks and Recreation. St. John, H. 1973.  
List and Summary of the Flowering Plants in the Hawaiian Islands. Pacific Tropical Botanical Garden, Lawaii.

#### Authors

The primary authors of this rule are Dr. Derral Herbst, U.S. Fish and Wildlife Service, 300 Ala Moana Boulevard, Honolulu, Hawaii 96850 (808/546-5615) and Dr. John J. Fay, Office of Endangered Species, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (703/235-1975).

#### List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

#### PART 17—[AMENDED]

Accordingly, Part 17 of Chapter I of Title 50 of the U.S. Code of Federal Regulations is amended, as set forth below.

1. The authority citation for Part 17 is as follows:

**Authority.**—Pub. L. 93-205, 87 Stat. 884; Pub. L. 96-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1241; Pub. L. 97-304, 96 Stat. 1411 (16 U.S.C. 1531, *et seq.*).

2. Section 17.12 (h) is amended by adding, in alphabetical order by family and genus, the following plant species:

#### § 17.12 Endangered and threatened plants.

\* \* \* \* \*  
(h) \* \* \*

#### PLANTS

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
<i>Panicum carteri</i> .....	Carter's panicgrass.....	U.S.A. (HI).....	E.....		17.96(a).....	NA

§ 17.96 [Amended]

3. The Service also amends § 17.96(a) by adding the Critical Habitat of *Panicum carteri* alphabetically by family and genus as follows:

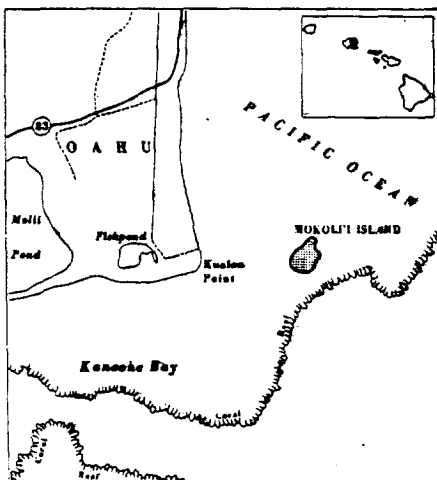
\* \* \* \* \*

Family Poaceae: Carter's panicgrass (*Panicum carteri*) Hawaii: City and County of Honolulu: Entire island of Mokoli'i (see map).

Probable primary constituent elements include: Exposure to strong sunlight; low rainfall; exposure to sea spray; and presence of gravelly, basalt-derived soil.

\* \* \* \* \*

CARTER'S PANICGRASS  
Honolulu County, HAWAII



Dated: September 28, 1983.

G. Ray Arnett

Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 83-27667 Filed 10-11-83; 8:45 am]

BILLING CODE 4310-55-M